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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/749,050	12/27/2000	Immanuel Krauter	10191/1642	5508
26646	7590	05/24/2006	EXAMINER	
KENYON & KENYON LLP ONE BROADWAY NEW YORK, NY 10004			HO, THOMAS M	
			ART UNIT	PAPER NUMBER
			2134	

DATE MAILED: 05/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/749,050	KRAUTER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Thomas M. Ho	2134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 May 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

1. **Claims 1-9 are pending.**
2. **The amendment of 5/2/06 has been received and entered.**

***Response to Arguments***

3. Applicants arguments have been fully considered but are moot in view of the new grounds of rejection.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-7, 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Examiner notes that the Applicant has recited the limitation “wherein the separate memory area is incapable of being erased” and has recited page 3, lines 19-26 of the specification as providing support for this recitation. However, it should be noted that while the claim calls for a specialized type of memory that is incapable of being erased. It is not. The “separate memory area” of the cells recited by the applicant’s invention are ***by definition***, erasable.

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Attention should be directed to the methodology by which the Applicant has implemented his or her limitation in the Application. Page 5, paragraph 3 of the specification recites a specialized OTP region where no line exists for erasing the flash memory used to implement this area.

However to implement his specialized memory, the Applicant has recited “The flash cells of the OTP region have only lines for programming or reading the content of the flash cells. The flash memory is designed as a flash EPROM, for example.”

While the applicant has recited that no line exists for erasing the memory, the memory used to implement the OTP region is nevertheless flash memory or a flash EPROM.

Flash memory by definition is memory that can be “flashed” or erased through a single global procedure. This stands in contrast to normal erasures where information may be erased on a cell by cell basis.

Indeed to this effect, Berra US patent 5787367 recites: “However, unlike the EEPROM, individual memory cells generally cannot be erased in a flash memory chip. This is because flash memory typically only has the capability of erasing selection sections of the memory or the entire contents of the memory.

**Flash memory**

*From Wikipedia, the free encyclopedia*

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A USB Flash Memory Device.

**Flash memory** is a form of non-volatile memory that can be electrically erased and reprogrammed. Unlike EEPROM, it is erased and programmed in blocks consisting of multiple locations (in early flash the entire chip had to be erased at once). Flash memory costs far less than EEPROM and therefore has become the dominant technology wherever a significant amount of non-volatile, solid-state storage is needed. Examples of applications include digital audio players, digital cameras and mobile phones. Flash memory is also used in USB flash drives, which are used for general storage and transfer of data between computers.

EPROM by its very definition is erasable. The acronym EPROM stands for erasable programmable read only memory.

## **EPROM**

*From Wikipedia, the free encyclopedia*

*An **EPROM**, or erasable programmable read-only memory, is a type of computer memory chip that retains its data when its power supply is switched off.*

Finally, the Examiner notes that in theory, any no memory in “incapable of being erased.” It is well known that at any adequately high temperature, the memory stored in any cell will eventually be destroyed. Memory is fairly sensitive to extremes in temperatures and must be maintained within a certain range of temperature in order to retain its information. Because of this, the Examiner has rejected the claims as reciting an indefinite limitation.

However, claims 10 and 11 elucidates how the separate memory area is incapable of being erased. Accordingly it is the Examiner’s position that they do not share the 35 USC 112 deficiencies of claims 1 and 9.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-7, 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berra, US patent 5787367 and Komori, US patent 6044014 and Blomquist et al. ,US patent 5658250.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Berra, US patent 5787367 and Komori, US patent 6044014.

In reference to claim 1:

Berra discloses a method for detecting a manipulation of a programmable memory device of a digital controller for a motor vehicle, comprising the steps of:

- Storing in the programmable memory device data and control programs for an operation of the digital controller and for a control/regulation of function of the motor vehicle, where the programmable memory device is flash memory that contains software to control the engine unit. (Column 1, lines 30-41) & (Column 5, lines 1-10)

- Storing information regarding a programming/reprogramming operation in a separate memory area of the programmable memory device where only reading and programming are possible (Column 1, lines 52-55), the step of storing information regarding the programming/reprogramming operation being performed in conjunction with each programming/reprogramming operation of the programmable memory device, where the information regarding the programming/reprogramming operation is stored in the authorization database and the memory of the programmable memory device. (Column 7, line 57 – Column 18, line 15)
- Reading out and comparing a content of the separate memory area with another set of information in order to detect a manipulation, wherein a remaining memory area of the programmable memory device is capable of being erased, where the separate memory area is the authorization database from which the encrypted information is compared. (Column 7, line 57 – Column 8, line 15), and where the ROMs used by Berra include EEPROMS and EPROMS which are ROMs capable of being erased. (Column 1, lines 57-67)

Berra fails to explicitly disclose a method wherein storing information regarding a programming/reprogramming operation including recording a number of times the programmable memory device has been programmed/reprogrammed.

Komori et al. Figures 3, 4, (Column 1, lines 38-63), (Column 4, lines 20-34), (Column 5, lines 30-41), (Column 6, lines 50-51) discloses storing information regarding a

programming/reprogramming operation including recording a number of times the programmable memory device has been programmed/reprogrammed.

Komori et al. (Column 1, lines 38-63), further discloses that the reason this is performed, that is, the advantage of recording the number of times the ROM or EEPROM has been programmed or reprogrammed, lies in the fact that EEPROMs can only be written and rewritten a finite number of times. Thus, by recording the number of rewrites that have been made, one can be certain not to allow the number of rewrites to exceed a maximum allowable number of rewrites beyond which, the performance of the EEPROM may degrade or cannot be guaranteed.

Berra fails to explicitly disclose the embodiment of claim 1, wherein the separate memory area is incapable of being erased.

US Patent 5658250, Blomquist et al. (Column 7, lines 50 – Column 8, line 65) discloses an embodiment wherein the control program is stored in flash memory that is incapable of being erased. Furthermore, US patent 5658250 discloses that such a memory is readily available by the Intel corporation.

In particular paragraphs 39 and 40 recite:

*(39) Flash memory 150 preferably includes a boot program which is preferably non-erasable. The boot program permits initialization and loading of pump operation information to the pump 12 via communications port 26. Further, a gate array 149 and/or flash memory 150 includes appropriate programming to handle incoming data from communications port 26 or keyboard 24 wherein the information is directed to the proper storage location if the information is not to be stored in flash memory 150. For example, remote programming may be utilized to enter the patient specific information into control system 100. The patient specific information may be entered initially or when changes occur*



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*over time due to changes in the specific therapy needed. For example, if the patient's condition improves or worsens, changes may need to be made in the specific patient settings. The flash memory 150 may include the appropriate program or programs to direct storage of the patient specific settings to the appropriate memory device in control system 100.*

*(40) Flash memory 150 is an embedded memory associated with control module 14. Once installed in control module 14, flash memory 150 is not removed from pump 12. Flash memory 150 is electrically erasable and reprogrammable and does not require power to maintain the contents of its memory. A variety of flash memories may be used for flash memory 150. An example of one preferred flash memory which is usable in pump 12 is by Intel Corporation, and identified as 28F008SA 8 MBIT (1 MBIT.times.8) Flashfile.TM. memory. Such memory is useful in pump 12 for handling pump operations information associated with the various features provided on pump 12. The Intel product is useful in that it includes separately erasable and reprogrammable blocks of memory, at least one of which can be blocked from erasure once programmed with the desired information.*

Blomquist et al. teaches that such memory is useful because certain information that is desired to be protected can be blocked from erasure once programmed.

It would have been obvious to one of ordinary skill in the art at the time of invention to storing information regarding a programming/reprogramming operation including recording a number of times the programmable memory device has been programmed/reprogrammed with the rest of the stored information of Berra in order to guarantee the number of rewrites does not exceed a maximum which is known to exceed a functional lifetime of the EEPROM, preventing the writing of data to a medium in which the functioning cannot be assured and to use flash memory, that cannot be erased to better secure the control program.

In reference to claim 2:

Berra discloses a database containing a series of variables and a password and serial identification number that must be compared to be fully authorized. (Column 3, line 7-35)

Komori et al. Figures 3, 4, (Column 1, lines 38-63), (Column 4, lines 20-34), (Column 5, lines 30-41), (Column 6, lines 50-51) discloses an embodiment where in the separate memory area, information regarding a cumulative number of programming/reprogramming operations of the programmable memory device is stored.

Claim 3 is rejected for the same basis as claim 2.

In reference to claim 4:

Berra (Column 1, lines 42-65) discloses the method according to claim 1, wherein the information regarding the programming/reprogramming is stored in the separate memory area by setting bits, where it is known that digital information is stored as a series of zero and one bits.

In reference to claim 5:

Berra disclose the method according to claim 1, further comprising the step of:

Storing the information regarding the programming/reprogramming in a one-time-programmable region of the programmable memory device, the programmable memory device being arranged as a flash memory, where the flash memory that is one time programmable is known as a PROM.  
(Column 1, line 41-54)

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In reference to claim 6:

Berra discloses the method according to claim 1, further comprising the step of:

Storing in the separate memory area information from an external programming unit for programming/reprogramming a flash memory, where information is stored in the database concerning the authorization information necessary to program or reprogram the flash memory.

(Column 3, line 7-35)

In reference to claim 7:

Berra discloses the method according to claim 1, further comprising the step of:

Storing in the separate memory area information from an arrangement of the digital controller for storing the information regarding the programming/reprogramming operation, where information is stored in the database concerning the authorization information necessary to program or reprogram the flash memory. (Column 3, line 7-35)

In reference to claim 8:

Berra discloses an external programming unit for at least one of programming and reprogramming a flash memory of a digital controller for a motor vehicle, the flash memory including a programmable memory device, the external programming unit comprising:

- An arrangement for storing in the flash memory data and control programs for an operation of the digital controller and for a control/regulation of functions of the motor vehicle, where the programmable memory device is flash memory that contains software to control the engine unit. (Column 5, lines 1-10)

- An arrangement for storing information regarding a programming/reprogramming operation in a separate memory area of the programmable memory device where only reading and programming are possible (Column 1, lines 52-55), the storing of the information regarding the programming/reprogramming operation occurring in conjunction with each programming/reprogramming operation of the programmable memory device, where the information regarding the programming/reprogramming operation is stored in the authorization database and the memory of the programmable memory device. (Column 7, line 57 – Column 18, line 15)
- An arrangement for reading out and comparing a content of the separate memory area with another set of information in order to detect a manipulation, where the password and set of variables are read out and compared. (Column 7, line 40 – Column 8, line 15)
- An arrangement for storing in the separate memory area information from an external programming unit for programming/reprogramming the flash memory, wherein a remaining memory area of the programmable memory device is capable of being erased, where the separate memory area information is the authorization database. (Column 3, lines 7-35), and where the ROMs used by Berra include EEPROMS and EPROMS which are ROMs capable of being erased. (Column 1, lines 57-67)

Berra fails to explicitly disclose a method wherein storing information regarding a programming/reprogramming operation including recording a number of times the programmable memory device has been programmed/reprogrammed.

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Komori et al. Figures 3, 4, (Column 1, lines 38-63), (Column 4, lines 20-34), (Column 5, lines 30-41), (Column 6, lines 50-51) discloses storing information regarding a programming/reprogramming operation including recording a number of times the programmable memory device has been programmed/reprogrammed.

Komori et al. (Column 1, lines 38-63), further discloses that the reason this is performed, that is, the advantage of recording the number of times the ROM or EEPROM has been programmed or reprogrammed, lies in the fact that EEPROMs can only be written and rewritten a finite number of times. Thus, by recording the number of rewrites that have been made, one can be certain not to allow the number of rewrites to exceed a maximum allowable number of rewrites beyond which, the performance of the EEPROM may degrade or cannot be guaranteed.

It would have been obvious to one of ordinary skill in the art at the time of invention to storing information regarding a programming/reprogramming operation including recording a number of times the programmable memory device has been programmed/reprogrammed with the rest of the stored information of Berra in order to guarantee the number of rewrites does not exceed a maximum which is known to exceed a functional lifetime of the EEPROM, preventing the writing of data to a medium in which the functioning cannot be assured.

In reference to claim 9:

Berra discloses a digital controller for a motor vehicle, comprising:

- A programmable memory device for storing data and control programs for an operation of the digital controller and for a control/regulation of functions of the motor vehicle, where the programmable memory device is flash memory that contains software to control the engine unit. (Column 5, line 1-10)
- An arrangement for storing information regarding a programming/reprogramming operation in a separate memory area of the programmable memory device where only reading and programming are possible (Column 1, lines 52-55), the storing of the information regarding the programming/reprogramming operation occurring in conjunction with each programming/reprogramming operation of the programmable memory device, where the information regarding the programming/reprogramming operation is stored in the authorization database and the memory of the programmable memory device. (Column 7, line 57 – Column 18, line 15)
- An arrangement for reading out and comparing a content of the separate memory area with another set of information in order to detect a manipulation, where the password and set of variables are read out and compared. (Column 7, line 40 – Column 8, line 15)
- An arrangement for storing in the separate memory area information from an arrangement of the digital controller for storing the information regarding the programming/reprogramming operation, wherein a remaining memory area of the programmable memory device is capable of being erased, where the separate memory area information is the authorization database. (Column 3, line 7-35), and where the ROMs used by Berra include EEPROMS and EPROMS which are ROMs capable of being erased. (Column 1, lines 57-67)

Berra fails to explicitly disclose a method wherein storing information regarding a programming/reprogramming operation including recording a number of times the programmable memory device has been programmed/reprogrammed.

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Komori et al. (Column 1, lines 38-63), further discloses that the reason this is performed, that is, the advantage of recording the number of times the ROM or EEPROM has been programmed or reprogrammed, lies in the fact that EEPROMs can only be written and rewritten a finite number of times. Thus, by recording the number of rewrites that have been made, one can be certain not to allow the number of rewrites to exceed a maximum allowable number of rewrites beyond which, the performance of the EEPROM may degrade or cannot be guaranteed.

Berra fails to explicitly disclose the embodiment of claim 9, wherein the separate memory area is incapable of being erased.

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US Patent 5658250, Blomquist et al. (Column 7, lines 50 – Column 8, line 65) discloses an embodiment wherein the control program is stored in flash memory that is incapable of being erased. Furthermore, US patent 5658250 discloses that such a memory is readily available by the Intel corporation.

In particular paragraphs 39 and 40 recite:

*(39) Flash memory 150 preferably includes a boot program which is preferably non-erasable. The boot program permits initialization and loading of pump operation information to the pump 12 via communications port 26. Further, a gate array 149 and/or flash memory 150 includes appropriate programming to handle incoming data from communications port 26 or keyboard 24 wherein the information is directed to the proper storage location if the information is not to be stored in flash memory 150. For example, remote programming may be utilized to enter the patient specific information into control system 100. The patient specific information may be entered initially or when changes occur over time due to changes in the specific therapy needed. For example, if the patient's condition improves or worsens, changes may need to be made in the specific patient settings. The flash memory 150 may include the appropriate program or programs to direct storage of the patient specific settings to the appropriate memory device in control system 100.*

*(40) Flash memory 150 is an embedded memory associated with control module 14. Once installed in control module 14, flash memory 150 is not removed from pump 12. Flash memory 150 is electrically erasable and reprogrammable and does not require power to maintain the contents of its memory. A variety of flash memories may be used for flash memory 150. An example of one preferred flash memory which is usable in pump 12 is by Intel Corporation, and identified as 28F008SA 8 MBIT (1 MBIT.times.8) Flashfile.TM. memory. Such memory is useful in pump 12 for handling pump operations information associated with the various features provided on pump 12. The Intel product is useful in that it includes separately erasable and reprogrammable blocks of memory, at least one of which can be blocked from erasure once programmed with the desired information.*

Blomquist et al. teaches that such memory is useful because certain information that is desired to be protected can be blocked from erasure once programmed.

It would have been obvious to one of ordinary skill in the art at the time of invention to storing information regarding a programming/reprogramming operation including recording a number of



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times the programmable memory device has been programmed/reprogrammed with the rest of the stored information of Berra in order to guarantee the number of rewrites does not exceed a maximum which is known to exceed a functional lifetime of the EEPROM, preventing the writing of data to a medium in which the functioning cannot be assured and to use flash memory, that cannot be erased to better secure the control program.

In reference to claim 10:

Berra (Column 2, lines 1-10) discloses the method according to claim 1, wherein the separate memory area lacks hardware for performing an erase operation thereon, where the flash ROM does not have hardware for performing individual cell erase operations.

Claim 11 is rejected for the same reasons as claim 10.

### ***Conclusion***

8. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of the final action and the advisory action is not mailed under after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension pursuant to 37 CFR

1.136(A) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication from the examiner should be directed to Thomas M Ho whose telephone number is (571)272-3835. The examiner can normally be reached on M-F from 9:30 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques Louis-Jacques can be reached on (571)272-6962.

The Examiner may also be reached through email through [Thomas.Ho6@uspto.gov](mailto:Thomas.Ho6@uspto.gov)

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-2100.

General Information/Receptionist Telephone: 571-272-2100 Fax: 571-273-8300

Customer Service Representative Telephone: 571-272-2100 Fax: 571-273-8300

TMH

May 17<sup>th</sup>, 2006

*Jacques Louis-Jacques*  
JACQUES H. LOUIS-JACQUES  
PRIMARY EXAMINER